

DESCRIPTIONS OF SOME NEW SPECIES OF THE GENUS  
*PACHYTRICHA*.

BY D. SHARP, M.B.

Among the many interesting and anomalous genera of *Colcoptera* that inhabit Australia, the genus *Pachytricha* is probably one of the most remarkable. Its satisfactory classification is a difficult point, and I think must yet remain so. Hope considered the genus allied to *Glaphyrus* and *Chasmatopterus*; Erichson considered it to be an ally of *Euchirus*, but afterwards changed this opinion, and placed *Pachytricha* among the group of Sericoid *Melolonthæ*, of which numerous genera are found in Australia, one or two in Western South America, one or two in New Zealand, and one in Europe. This group of Sericoid *Melolonthæ*, as established by Erichson, and adopted by Lacordaire, consists of a series of genera differing greatly one from another, and the association of which in one group does not satisfactorily express their differences and affinities. It must be admitted that *Pachytricha* in its general appearance, and in numerous points of its structure, differs much from all the other genera of the group; and, if we bear this in mind, and recollect also, that the other genera to which it has affinities, viz., *Glaphyrus* and *Euchirus*, are also very anomalous, and of difficult classification, I think we are warranted in concluding that we are here dealing with a genus which is less specialized than most of the other genera of Lamellicorn *Coleoptera*, and one therefore which is, perhaps, the little changed descendant of one of the more primitive forms of the family *Scarabæidæ*.

I have examined the position of the abdominal stigmata in the species characterized *infra* as *P. minor*, and adjoin their description, as well as some points that have escaped observation in the anatomy of the genus.

Abdominal stigmata two, three, and four, similar in shape to one another, moderately large, very open, elliptical, stigma three rather larger than two or four. Stigmata two and three placed partly in the connecting membrane, and partly in the horny portion of the abdomen; stigma four placed just in the horny portion close to the membrane; stigma five placed also close to membrane, its position being similar to that of the fourth stigma, but it is smaller than that, though it is large and open. Stigma six is small and closed, scarcely quite so near the membrane as the fifth stigma, but yet very little distant therefrom. Stigma seven small, placed close to junction of the dorsal and ventral plates.

Prosternum furnished with an elongate narrow post-coxal process, which is extremely densely clothed with very long hairs.

Mesosternum produced between the middle coxæ, these placed closed to one another, and separated only by a thin lamina.

Posterior coxæ broader externally than internally; their upper margin oblique in its direction, their outer and hinder angles acute.

I have been so fortunate as to accumulate from different sources nine individuals possessing the characters of the genus; and, after carefully examining them, have concluded that these individuals are representatives of five different species; it appears, moreover, to me that none of these specimens can be referred to *P. castanea*, Hope, the only species of the genus hitherto described; I have, therefore, drawn up descriptions of these insects, and, in order to make the paper more complete, have copied and added to it the description of *P. castanea*.

These six species may be arranged in two sections, readily distinguished by the structure of the labrum, and which (if connecting links be not discovered) will, perhaps, ultimately be adopted as distinct genera.

#### SECTION I.

*Labrum profunde (sed haud usque ad clypei marginem) emarginatum.*

##### 1. PACHYTRICHA MUNDA, sp. n.

*Nigro-picea, suprâ nitida, infrâ dense pallide lanosa, clytris testaceis, antennis rufescentibus, prothorace dense punctato; tibiis posterioribus in utroque sexû minus incrassatis. Long. corp. 14 lin.*

♂. *tarsis anterioribus, long. 6 lin.*

♀. *tarsis anterioribus, long. 3½ lin.*

Head pitchy-black, densely punctured. Thorax pitchy-black, shining, the sides densely punctured, the punctures being confluent and rugose; the front part is closely punctured, the back part more sparingly and indistinctly punctured; its breadth is nearly one and a half times its length, it has no hairs on its upper surface; scutellum pitchy-black, indistinctly punctured. Elytra testaceous, smooth and shining, without distinct punctation. Pygidium pitchy, without hairs. Under-side of the body quite woolly, being densely clothed with pale, soft, long pubescence. The last segment of the abdomen without pale hairs. Legs pitchy-black.

This species has been sent from Swan River by Mr. Brewer.

The two specimens of it before me differ from one another in several respects, and some of these differences are no doubt sexual. In the specimen which I believe to be the male, the legs are longer than in the other, the difference being most notable in the front tarsi, and the three teeth on the front tibiæ are less developed. The

pygidium is more deflexed, and the apical segment of the abdomen is smooth and shining in the middle, while in the female it is finely punctured, each puncture bearing a fine yellow hair.

2. *PACHYTRICHA PALLENS*, *sp. n.*

*Nigro-picea*, *suprà nitida*, *infrà dense pallide lanosa*, *elytris testaceis*, *antennis rufescentibus*, *prothorace dense punctato*.

*Long. corp.* 14 *lin.*

♂. *tarsis anterioribus*, *long.* 5½ *lin.*

♀. *adhuc incognita*.

The only individual of this species before me evidently belongs to the male sex; it is extremely similar to the male of *P. munda*, and differs from it as follows: it is a little narrower, and the elytra are shorter and more convex, the legs are more slender and a little shorter, the teeth on the front tibiæ are less developed, and the claws are notably smaller. The wool of the under-surface is not so long, and the abdomen is evidently more sparingly clothed.

North-West Australia: Mr. Du Boulay.

3. *PACHYTRICHA ROBUSTA*, *sp. n.*

*Picea*, *suprà nitida*, *infrà dense pallide lanosa*, *elytris castaneis*, *antennis rufescentibus*, *prothorace lateribus dense punctato*.

*Long. corp.* 17 *lin.*

Of this very fine species I have but a single mutilated specimen before me; this individual, though it has lost all its tarsi, and the club of its antennæ, is, I think, a female, and there can be no doubt of its being a distinct species from *P. munda*. It is much larger, notably broader and more robust than that species, the punctuation of its thorax is not so dense, the punctures not being confluent except at the front angles, the labrum is longer and more prominent, the elytra are not so smooth, and are darker in colour, the pygidium is broader, and has a deep impression at its extremity, the hind tibiæ are more dilated at their extremity, the last segment of the abdomen is much broader and less conical in form; and the fourth and fifth joints of the antennæ are much longer than in *P. munda*. This character will probably offer an easy means of distinguishing the two species; for in *P. munda* the fourth joint is only about as long as it is broad, while in *P. robusta* it is much longer.

This specimen was named *Pachytricha castanea* in the collection of Mr. W. W. Saunders; but I find that it does not agree with Westwood's figure (*Trans. Ent. Soc.*, iii, pl. xiii, f. 4), and is, I have no

doubt, a different species (I should judge Westwood's figure to represent a female). The only locality indicated for the specimen of *P. robusta* was "West Australia."

4. *PACHYTRICHA CASTANEA*, Hope (Trans. Ent. Soc. Lond., iii, p. 282, pl. xiii, f. 4).

"*Piceus, capite valde acuminato seu melius sub-cornuto. Thorax antice utrinque spinosus, marginibus elevatis et punctatis. Scutellum læve, postice rotundatum, piceum. Elytra castanea, postice acuminata, podice triangulo deflexo brunneo. Corpus infrà valde pilosum; capillis cinerascentibus. Pedes piceis et ciliatis.*"

"Long. lin. 15, lat. lin.  $5\frac{1}{2}$ ."

"*Habitat in Novâ Hollandiâ.*"

"This remarkable insect is from Australia, and appears to be a genus intermediate between *Glaphyrus* and *Chasmatopterus*."

SECTION II.

*Labrum omnino fissum.*

5. *PACHYTRICHA TECTA*, sp. n.

*Castanea, nitida, capite pedibusque piceis; prothoracis lateribus et parte anteriore fortiter punctatis, hoc etiam hirsuto; tibiis posterioribus apice fortiter dilatatis.*

Long. 16 lin., lat  $7\frac{1}{4}$  lin.

Head pitchy, rather coarsely and closely punctured, with a space in the middle less punctured. Thorax shining, coarsely and rather closely punctured, except a large space behind, which is nearly impunctate; the front part is clothed with rather long and scanty hairs. Elytra chestnut-yellow, very shining, and very nearly impunctate. Pygidium extremely finely punctured. Under-side densely clothed with woolly pubescence, except that the three or four apical segments of the abdomen are bare. Legs pitchy, the teeth of the front tibiæ much developed, hinder tibiæ strongly dilated at the extremity.

Of this species I have before me three specimens from Freemantle; they present no evident sexual distinctions, and I suspect them to be all females. I have also another specimen, coming, I believe, from the more northern parts of Australia, which is considerably smaller and narrower than the Freemantle individuals, and has the tibiæ not quite so stout: whether it be the male of *P. tecta*, or only a small individual of the female sex thereof, I am unable to say.

6. *PACHYTRICHA MINOR*, sp. n.

*Suprà castanea, subtus picea, sed dense lanosa, pedibus piceis; prothorace æqualiter subtiliterque punctato, elytris obsolete punctatis, pygidio crebre asperato-punctato.*

Long. 12 lin., lat.  $5\frac{3}{4}$  lin.

Head darker and more distinctly punctured than the rest of the upper-surface, with the line separating the elypeus from the front very distinct. Thorax of a chestnut colour, shining, rather finely and evenly punctured, the punctures, however, rather coarser, and more numerous at the sides and front angles than elsewhere; it is about one-third broader than long. Scutellum distinctly punctured, but with the sides and apex smooth. Elytra obsolete punctured, the punctuation near the scutellum more distinct than elsewhere. Pygidium closely punctured, and furnished with fine hairs. Under surface with a thick woolly pubescence, except on the middle of the abdomen, where there is only a scanty pubescence. Legs pitchy, hinder tibiae moderately dilated at the extremity.

I have seen only a single specimen of this insect, which comes from North-West Australia; its rough pygidium readily distinguishes it from the other species.

Thornhill, Dumfries:

26th March, 1874.

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## DESCRIPTIONS OF FIVE NEW LUCANOID COLEOPTERA.

BY CHAS. O. WATERHOUSE.

### 1. PRISMOGNATHUS (*Cyclorasis*) ANGULARIS, *sp. n.*

♀. *Niger, nitidus. Capite pone oculos vix angustiore. Thorace sat crebre fortiter punctato, angulis anticis prominentibus. Elytris crebre sat fortiter irregulariter punctatis, lateribus subtilius obsolete punctulatis.* Long. 9 lin.

Closely allied to *P. platycephalus*, the head is, however, somewhat narrower; the neck being as it were swollen, the eyes are much less prominent than in that species, and the punctuation throughout is more distinct. The thorax is narrower, the anterior angles are very prominent, and the sides in front are less oblique; the punctuation is moderately close and strong. The elytra present some indications of longitudinal impressed lines; the punctuation is moderately strong and close, and somewhat irregular, considerably less close and distinct than in *P. platycephalus*, and the sides are slightly opaque, obscurely and very finely punctured.

*Hab.* Japan.

Unique in coll. G. Lewis.

### 2. DORCUS BINODULOSUS, *sp. n.*

♂. *D. Dehaanii affinis; niger, subdepressus. Mandibulis capite vix longioribus, arcuatis, apicibus acutis, ad basin suprà dente triangulari retrorsum directo. Capite sub-plano subtilissime granuloso punctis aspersis, genis pone oculos rectangularibus. Thorace depresso sub-*